Ref. No.3575

ONKYO® SERVICE MANUAL

Integrated Stereo Amplifier

MODEL A-9211

Black and Silver models

BMP/SMP/SMPT	230V AC, 50Hz
BMWT	120/220V AC, 50/60Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PARTS NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

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ONKYO®
AUDIO COMPONENTS

SPECIFICATIONS

Power output:	**40 watts per channel, min RMS, at 8 ohms, both channels driven from 20Hz to 20 kHz, with no more than 0.08% THD.**
	2×60 watts at 4 ohms, 1 kHz (DIN)
	2×45 watts at 8 ohms, 1 kHz (DIN)
Total Harmonic Distortion:	0.08% at rated power
IM Distortion:	0.1% at rated power
Damping Factor:	60 at 8 ohms
Frequency response:	15 Hz – 50kHz ± 1dB
Input sensitivity/impedance	
Phono:	2.5 mV/50 kohms
Tuner/CD/Line:	150 mV/25 kohms
Tape Play:	150 mV/25 kohms
Output sensitivity/impedance	
Tape Rec:	150 mV/25 kohms (phono)
Phono overload:	130 mV RMS at 1 kHz, 0.1% THD
	(REC)
Bass control:	±8 dB at 100 Hz
Treble control:	±8 dB at 10 kHz
Loudness control:	+8 dB at 100 Hz
	+2 dB at 10 kHz
Signal to noise ratio (IHF-A)	
Phono:	80 dB (5 mV input)
Direct:	102 dB (0.5 V input)(CD)
Muting:	-50 dB

General

Power supply:	AC 230V, 50Hz
	AC 120 V and 220-230V switchable, 50 Hz/60 Hz
Dimensions (W × H × D):	453 × 120 × 331mm
	17-1/8" × 4-3/4" × 13-1/16"
Weight:	6.7 kg, 14.8 lbs.

Remote control RC-286S

Transmitter:	Infrared
Signal range:	Approx. 5 meters, 16ft
Power supply:	Two "AA" batteries (1.5 V × 2)
Dimensions (W × H × D):	55 × 18 × 194mm
	2-3/16" × 11/16" × 7-5/8"
Weight:	100 grams, 3.5 oz. (including batteries)

Specifications and features are subject to change without notice.

ADJUSTMENT PROCEDURES

Adjustments and Checking the Protection Circuitry

1. Preparations

1) Place the unit on the workbench. (There should be about 15 mm of space between the base plate of the unit and the work surface.)

2) Set up the unit as follows.
   (1) No load
   (2) No signal
   (3) Volume turned all the way down
   (4) Speaker switch OFF
   (5) Power switch OFF

Note) Check the following points before making adjustments
   (1) The power switch should be OFF.
   (2) The interior of the unit should not be warm.

2. Idling current adjustment

1) Turn the power switch ON .

Test point	Adjustment	
P505 on the NAAF-6038 circuit board	R539	0.15~0.25mV
P506 on the NAAF-6038 circuit board	R540	015~0.25mV

2) Set the voltage by R539, R540 after 4 ~6 minutes heat running with cover as follows.

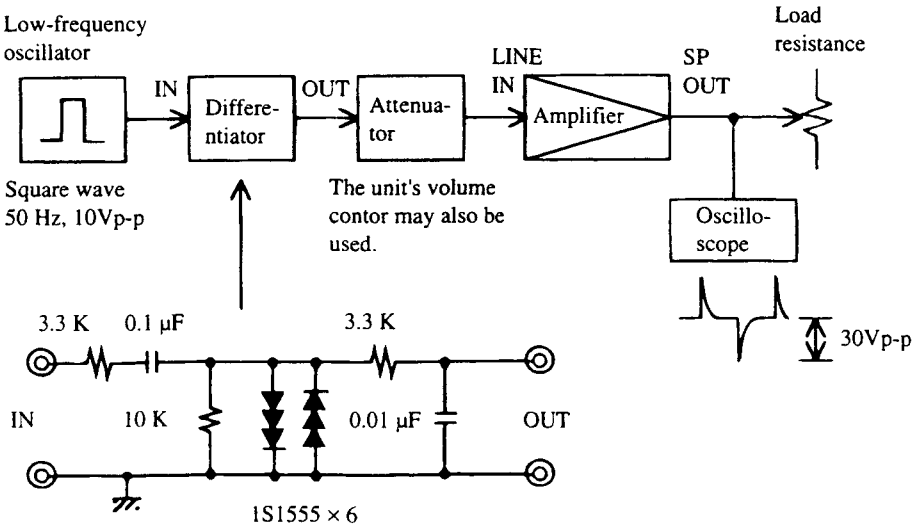
Test point	Adjustment	
P505 on the NAAF-6038 circuit board under 2.5 mV 2.5 mV ~ 4.5 mV over 4.5 mV	R539	3mV Leave it as it is. 4 mV
P506 on the NAAF-6038 circuit board under 2.5 mV 2.5 mV ~ 4.5 mV over 4.5 mV	R540	3mV Leave it as it is. 4 mV

NOTE: Please set Cover during warming up. This model has so sensitiveness by the around temperature.

3. Check of operation of protection circuitry

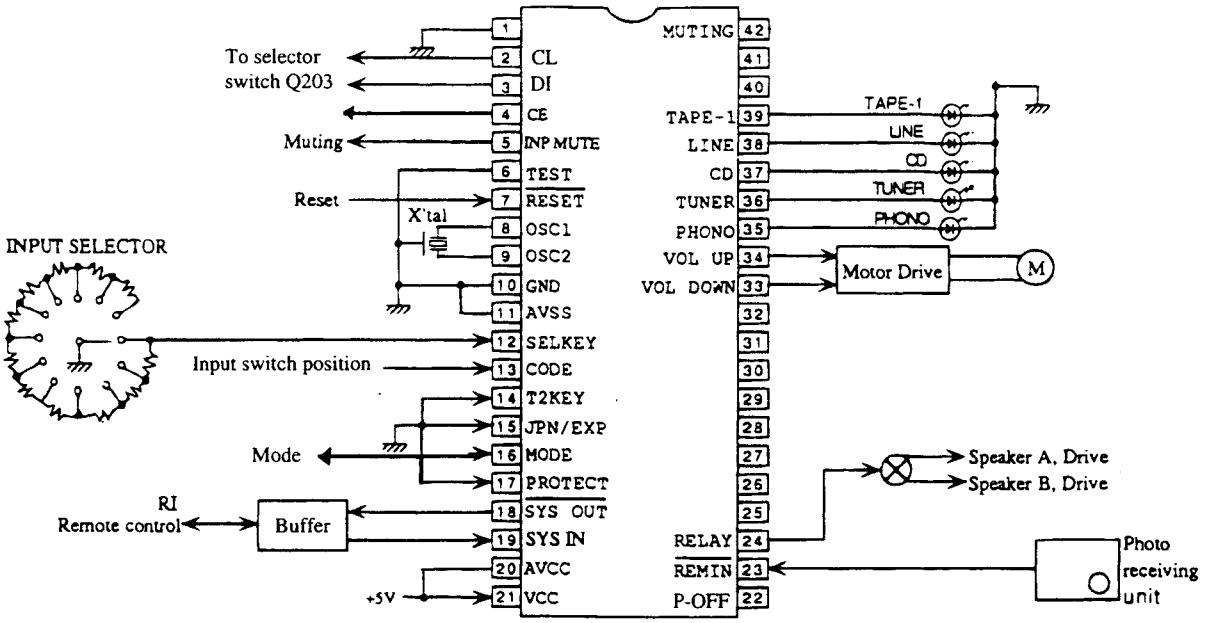
1) Check of operation of muting.
   (1) Confirm that muting OFF approximately 5 seconds after the power switch is turned ON.
   (2) Muting should turn OFF approximately 0.1 seconds after selector switch is changed.

2) Confirmation of protection circuit.
   (1) Signal input from the circuit illustrated below with no load.
   (2) Confirm that speaker muting does not turn ON even when a 2 ohm load is connected when a peak value of 30Vp-p is output.
   (3) Next, confirm that when a 1 ohm load is connected speaker muting switches ON and OFF a couple of times.



IC BLOCK DIAGRAM

HD404314A33S



HD404314

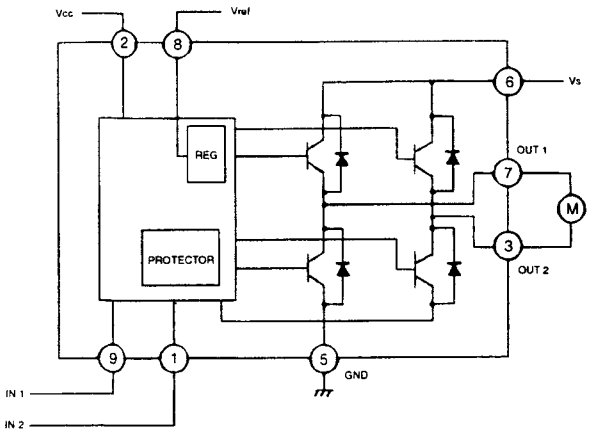
Pin No.	CODE	FUNCTION	I / O	DESCRIPTION
1	RA1/Vdisp	------	-----	Not used, To be connected with GND.
2	R00/SCK	CL	OUT	Output terminal for Input selector.
3	R01/SI	D1		
4	R02/SO	CE	-----	
5	R03/TOC	INP MUTE	OUT	Muting output terminal. Active "H".
6	TEST	TEST	-----	Shipment Test. To be connected with GND.
7	$\overline{\text{RESET}}$	$\overline{\text{RESET}}$	IN	Input terminal for Reset signal. Active "L"
8	OSC1	Xtal	-----	Terminal for connecting with Ceramic oscillator (4MHz)
9	OSC2	Xtal	-----	
10	GND	GND	-----	Ground terminal
11	AVss	AVss	-----	Ground terminal of A/D converter
12	R30/AN0	SELKEY	IN	Input terminal for when changing over Input Selector. Through A/D conversion, the selector will be detector on its right or left rotation.
13	R31/AN1	CODE	IN	Code input terminal for detecting position of Rotary switch of Motor drive.
14	R32/AN2	T-2KEY	IN	Tape-2 Key entry terminal.
15	R33/AN3	JPN/EXP	IN	Input terminal for change-over between Japan model and Export model.

Pin No.	CODE	FUNCTION	I/O	DESCRIPTION
16	R40/AN4	MODE	IN	Input terminal for initialization to change over operation mode.
17	R41/AN5	PROTECT	IN	Input terminal for detecting protect operation. To be connected with GND.
18	R42/AN6	$\overline{\text{SYS OUT}}$	OUT	Output terminal for System Code.
19	R43/AN7	SYS IN	IN	Input terminal for System Code.
20	AVcc	AVcc	-----	Analog reference voltage for A/D conversion.
21	Vcc	+5V	-----	Power(+5V) terminal .
22	D0/INT0	$\overline{\text{POFF}}$	IN	Input terminal for Detecting Power suspension. However, "L" 100 μ S or under shall be ignored.
23	D1/INT1	$\overline{\text{REM IN}}$	IN	Remote control signal input terminal
24	D2/EVENB	RELAY	OUT	Output terminal for controlling relay. "H" when ON.
25	D3/BUZZ	PLAYER	OUT	Not used
26	D4/STOPC	------	-----	Not used
27	D5			
28	D6			
29	D7			
30	D8			
31	R80			
32	R81			
33	R81	VOL DOWN	OUT	UP / DOWN output terminal for Volume. Active "H".
34	R83	VOL UP		

OPERATION	VOL UP	VOL DOWN	
STOP	H	H	POWER ON
VOL UP	H	L	
VOL DOWN	L	H	
POWER OFF	L	L	

35	R10	PHONO	OUT	Output terminal for Input selector LED. Active "H".
36	R11	TUNER		
37	R12	CD		
38	R13	LINE		
39	R20	TAPE-1		
40	R21	------	-----	Not used
41	R22	------	-----	Not used
42	R23	MUTING	OUT	Output terminal for Audio muting LED, Remote control

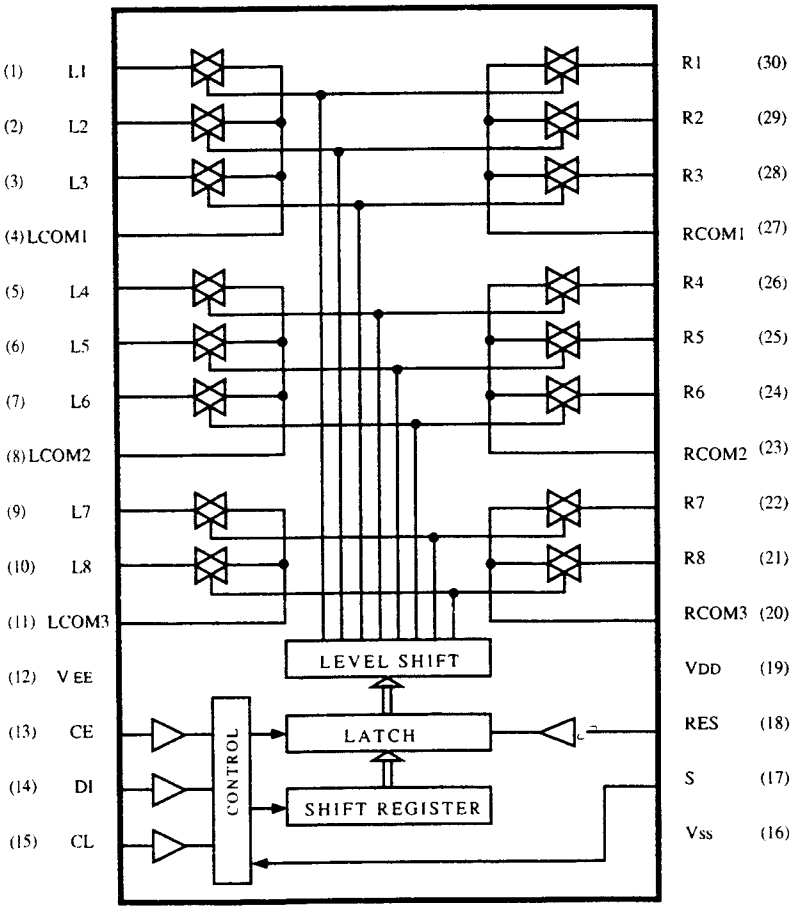
Q702
TA7291S (Volume Motor Drive)



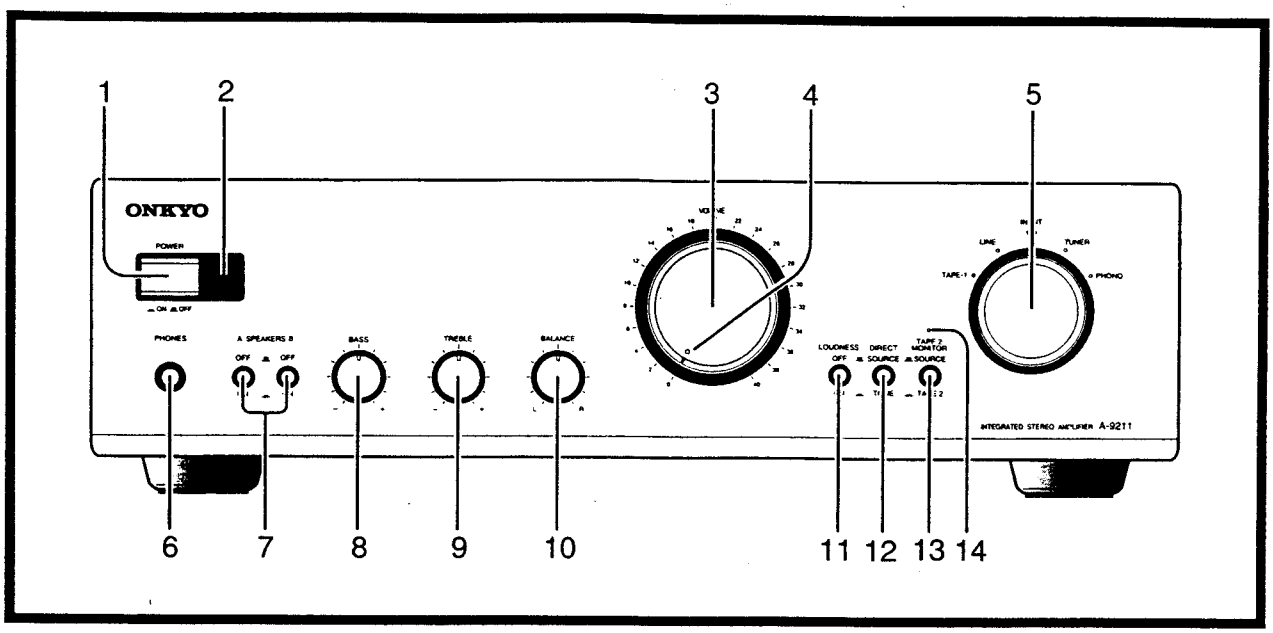
INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

CCW:Counter clockwise direction
CW:Clockwise direction

Q203
LC7822N

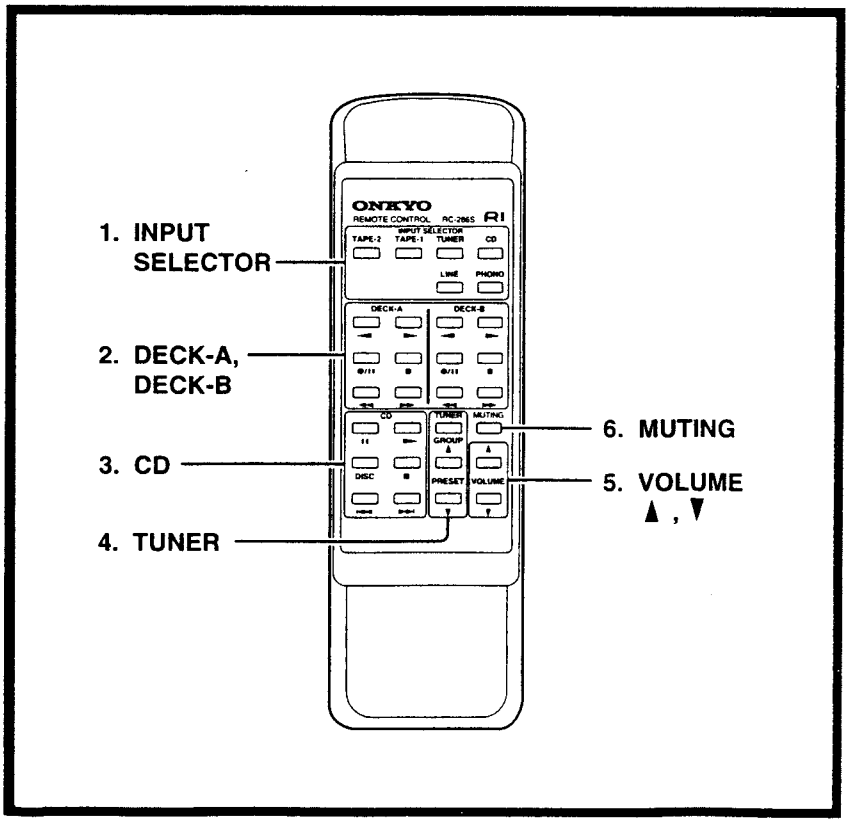


Control positions and names



Front panel

1. Power switch
2. Remote control sensor
3. Volume control knob
4. Muting indicator
5. Input selector knob and indicator
6. Headphone jack
7. Speaker selector switches
8. Bass control knob
9. Treble control knob
10. Balance control knob
11. Loudness switch
12. Direct switch
13. Tape-2 Monitor switch
14. Tape-2 Monitor indicator



Remote control

1. **Input selector buttons**
2. **Tape operation buttons**
   - ◄ : Reverse play button
   - ► : Forward play button
   - ●/❚❚ : Record/pause button
   - ■ : Stop button
   - ◄◄ : Fast rewind button
   - ►► : Fast forward button
3. **CD operation buttons**
   - ❚❚ : Pause button
   - ► : Play button
   - DISC : Disc button for CD changer
   - ■ : Stop button
   - ⏮ : Down button
   - ⏭ : Up button
4. **Tuner operation buttons**
   - GROUP : Group or class selector button
   - PRESET : Preset memory ▲ (up)/ ▼ (down) buttons
5. **Volume control buttons**
6. **Audio muting button**

CHASSIS-EXPLODED VIEW-PARTS LIST

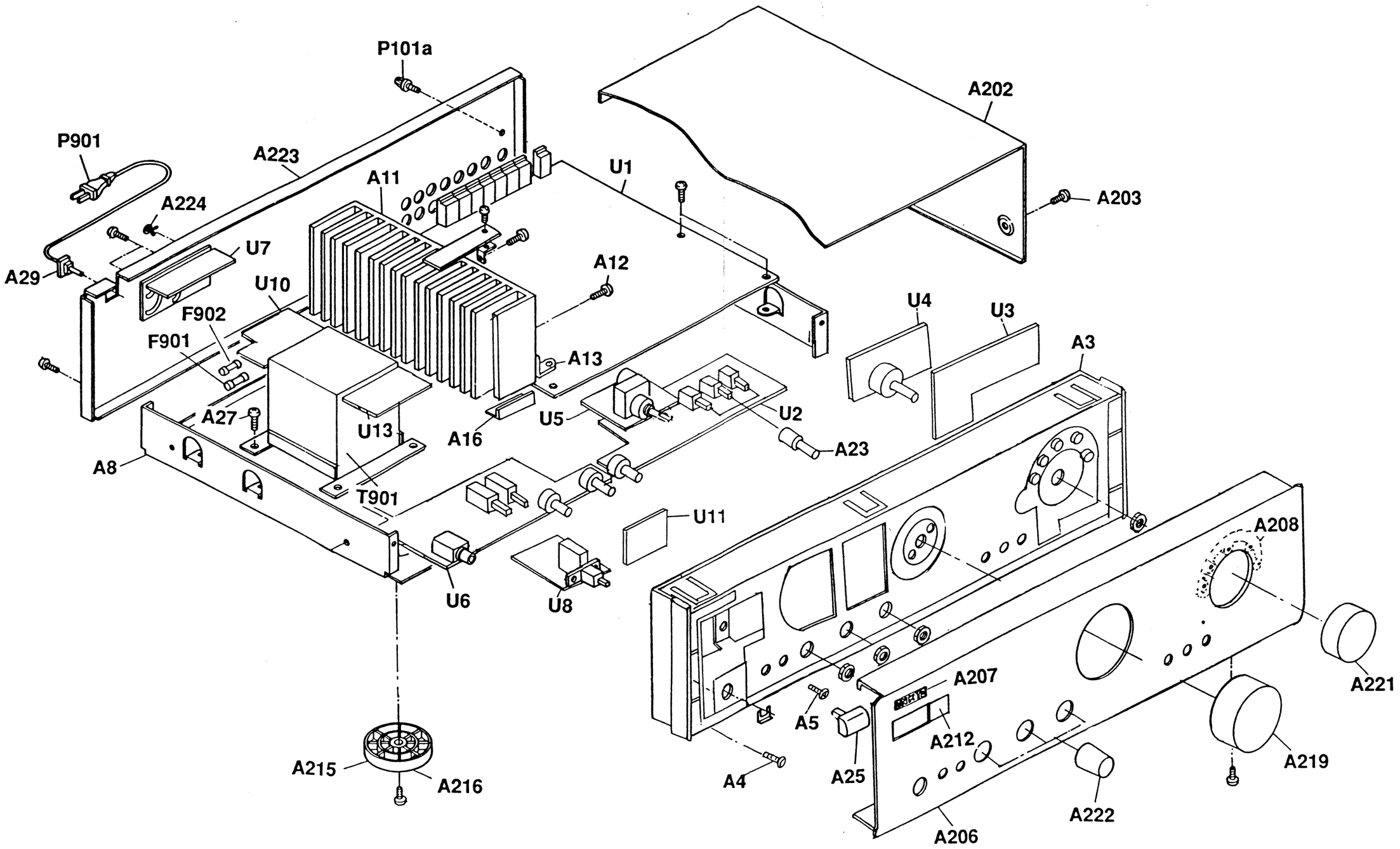
REF. NO.	PART NO.	DESCRIPTION
A3	27110995	Front bracket <B>
	27110996	Front bracket <S>
A4	838130088	3TTB+8B, Screw
A5	838430107	3TTB+10S(BC), Screw
A8	27100331Y	Chassis
A9	27190511	Holder,KGLP-15RF
A11	27160383Y	Radiation
A12	801433	3SMS8W.SW+14B, Screw(BC)
A13	27141530AY	Retainer (HS-2)
A16	27141671Y	Retainer
A23	283253274Y	Knob (push) <B>
	283253275Y	Knob (push) <S>
A25	28325465Y	Knob (Pow) <B>
	28325466Y	Knob (Pow) <S>
A27	830440089Y	4TTC+8C(BC), Screw
A29	27300750	⚠ Cord bushing, #2271
A202	28184688Y	Top cover <B>
	28184689Y	Top cover <S>
A203	838230088Y	3TTB+8B(NI),Screw <S>
A206	27211911A	Front panel <B>
	27211912A	Front panel <S>
A207	28135244Y	Badge <B>
	28135245Y	Badge <S>
A208	28198861Y	Facet (SEL)
A212	28191765Y	Clear plate
A215	27175316B	Leg
A216	28141332	Cushion t=1.6x30x16
A219	28325469	Knob (VOL) AS <B>
	28325470	Knob (VOL) AS <S>
A221	28325476	Knob (TUN) <B>
	28325477	Knob (TUN) <S>
A222	28325405Y	Knob (TONE) <B>
	28325474Y	Knob (TONE) <S>
A223	27122346Y	Rear panel <P>
	27122347Y	Rear panel <WT>
	27122348Y	Rear panel <PT>
A224	880025-1Y	NRP-345, Plastic rivet <P,PT>
D901	22380022Y or	RBV402 or
	22380285	RS403M, Diode
T901	2301255Y	⚠ NPT-1293P, Power transformer <P,PT>
	2301256Y	⚠ NPT-1293DG, Power transformer <WT>
F901	252151Y or	⚠ 4A-TSC, Fuse <WT>
	252163	

REF. NO.	PART NO.	DESCRIPTION
F902	252073	⚠ 1.6A-SE-EAK, Fuse <P>
	252074Y	⚠ 2A-SE-EAK, Fuse <PT>
	252074Y	⚠ 2A-SE-EAK, Fuse <WT>
P101a	25060044	3*14, TRM
P901	253193HITY	AS-CEE, AC Cord <P,PT>
	253233KAW	AS-CEE-2, AC Cord <WT>
Q519,Q520	2202104Y	2SC3423-Y, Transistor
Q531,Q532	2203043Y	2SC5197-O, Transistor
Q533,Q534	2203033Y	2SA1940-O, Transistor
	223024Y	AC238, Isolation sheet
U1	1A751538-1Y	Main circuit pc board ass'y (NAAF-6038-1)
U2	1A751539-1AY	Control circuit pc board (NAETC-6039-1A) <P,PT>
U2	1A751539-1BY	Control circuit pc board (NAETC-6039-1B) <WT>
U3	1A751540-1AY	LED p.c. board (NALED-6040-1A) <P,PT>
U3	1A751540-1BY	LED p.c. board (NALED-6040-1B) <WT>
U4	1A751541-1AY	Encoder pc board (NASW-6041-1A) <P,PT>
U4	1A751541-1BY	Encoder pc board (NASW-6041-1B) <WT>
U5	1A751542-1AY	Volume circuit pc board (NAETC-6042-1A) <P,PT>
U5	1A751542-1BY	Volume circuit pc board (NAETC-6042-1B) <WT>
U6	1A751543-1AY	Tone circuit pc board (NAETC-6043-1A) <P,PT>
U6	1A751543-1BY	Tone circuit pc board (NAETC-6043-1B) <WT>
U7	1A751544-1AY	Speaker terminal pc board (NAETC-6044-1A) <P,PT>
U7	1A751544-1BY	Speaker terminal pc board (NAETC-6044-1B) <WT>
U8	1A751545-1AY	Power switch pc board (NASW-6045-1A) <P,PT>
U8	1A751545-1BY	Power switch pc board (NASW-6045-1B) <WT>
U10	1A751547-1AY	Primary pc board (NAPS-6047-1A) <P,PT>
U10	1A751547-1BY	Primary pc board (NAPS-6047-1B) <WT>
U11	1A751548-1AY	Remote sensor pc board (NAETC-6048-1A) <P,PT>
U11	1A751548-1BY	Remote sensor pc board (NAETC-6048-1B) <WT>
U12	1A751549-1AY	Voltage selector pc board (NAETC-6049) <P,PT>
U12	1A751549-1BY	Voltage selector pc board (NAETC-6049-1B) <WT>

NOTE: <B> Black color model only
<S> Silver color model only
<P> 230V model only
<WT> Taiwanes model only
<PT> Asian model only

NOTE: THE COMPONENTS INENTIFIED BY MARI
⚠ ARE CRITICAL FOR RISK OF FIRE ANI
ELECTRIC SHOCK. REPLACE ONLY WITI
PART NUMBER SPECIFIED.

CHASSIS-EXPLODED VIEW



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PRINTED CIRCUIT BOARD PARTS LIST

U1 MAIN CIRCUIT PC BOARD (NAAF-6038)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q101	222502	NJM4558D-X
Q203	22240270	LC7822N
Q701	22240788	HD404314A33
Q702	22240239	TA7291S
Q901	222780565JRC	NJM78M56FA
	Transistors	
Q301,Q302	2213631	RN1241-A
Q501-Q504	2211733 or	2SC1845-E or
	2211732	2SC1845-F
Q505-Q508	2213284	2SC1740S-R
Q509-Q514	2211353 or	2SA949-O or
	2211354	2SA949-Y
Q515-Q518	2211633 or	2SC2229-O or
	2211634	2SC2229-Y
Q519,Q520	2202104	2SC3423-Y
Q521,Q522	2213284	2SC1740S-R
Q523,Q524	2211633 or	2SC2229-O or
	2211634	2SC2229-Y
Q525,Q526	2211353 or	2SA949-O or
	2211354	2SA949-Y
Q527,Q528	2203010	2SC5171
Q529,Q530	2203000	2SA1930
Q531,Q532	2203043	2SC5197-O
Q533,Q534	2203033	2SA1940-O
Q536	2211792	2SA992-F
Q537,Q538	2211733 or	2SC1845-E or
	2211732	2SC1845-F
Q541-Q543	2213284	2SC1740S-R
Q544	2213354	2SA933S-R
Q703,Q704,Q706	2213290	DTC114ES
Q705	2213160	DTC124ES
Q707	2212600T	DTA124ES
Q708,Q709	2213510T	DTA114ES
Q902	2215163	2SD667A-C
Q903	2215173	2SB647A-C
	Diodes	
D501-D503, D702-D711	223163	1SS133
D712	224470562	MTZJ5.6B, Zener
D713	223163	1SS133
D901	22380022	RBV402
D902-D907	22380260 or	RL1N4003 or
	22380032	1SR139-100
D908	224470512	MTZJ5.1B, Zener
D909,D910	224471503	MTZJ15C, Zener
	Coils	
L501,L502	231176S	S-1.3C
	Ceramic lock	
X701	3010150	CST4.00MGW, 4M
	Capacitors	
C101,C102,C321, C322,C501,C502, C511,C512,C705, C910,C918, C921-C924	354741009	10 μ F, 16V, Elect.
C103,C104	374721215	120pF ± 10%, 50V, Plastic
C107,C108,C537, C703	354741019	100 μ F, 16V, Elect.
C109,C110	374726824	6800pF ± 5%, 50V, Plastic
C111,C112	374721824	1800pF ± 5%, 50V, Plastic
C115,C116	354784709	47 μ F, 50V, Elect.
C221-C230	374721015	100pF ± 10%, 50V, Plastic
C309,C913-C916	354780109	1 μ F, 50V, Elect.
C319,C320	354780229	2.2 μ F, 50V, Elect.
C513,C514	354781009	10 μ F, 50V, Elect.
C517-C518,C903, C904,C907	374721044	0.1 μ F ± 5%, 50V, Plastic
C523,C524	354743319	330 μ F, 16V, Elect.
C538	354783399	0.33 μ F, 50V, Elect.
C701,C702	354780479	4.7 μ F, 50V, Elect.
C704	354721019	100 μ F, 6.3V, Elect.
C707	354781099	0.1 μ F, 50V, Elect.
C708	3000076 or	EECS5R5T104 or
	3000078	DX-5R5L104, EDL C
C905,C906	3504270	6800 μ F, 50V, Elect.
C908	354742229	2200 μ F, 16V, Elect.
C911,C912	354742219	220 μ F, 16V, Elect.
C917	354744709	47 μ F, 16V, Elect.
C919,C920	354780109	1 μ F, 50V, Elect.
	Resistors	
R509,R510,R521,	443528204	82ohm ± 5% 1/2W, Metal oxid
R522	443528204	82ohm ± 5% 1/2W, Metal oxid
R527,R528	443526804	68ohm ± 5% 1/2W, Metal oxid
R529,R530	443528204	82ohm ± 5% 1/2W, Metal oxid
R539,R540	5210256	N06HR, 300BC, Trim
R541,R542	443523914	390ohm ± 5% 1/2W, Metal oxid
R543-R546	443521014	100ohm ± 5% 1/2W, Metal oxid
R547,R548	443522214	220ohm ± 5% 1/2W, Metal oxid
R549-R552	453530474	4.7ohm ± 5%, 1/2W, Metal
R553,R554	4000132	0.22 ohm ± 10%, 5W, Metal Plate
R567,R568	443521004	10ohm ± 5% 1/2W, Metal oxid
R569,R570	453630824	8.2ohm ± 5%, 1/2W, Metal
R906,R907	443523614	360ohm ± 5% 1/2W, Metal oxid
R909-R912	453530224	2.2ohm ± 5%, 1/2W, Metal
R915	453530224	2.2ohm ± 5%, 1/2W, Metal
	Jacks	
P101	25045472 or	NPJ-2PDBL290 or
	25045307	NPJ-2PDBL166
P202	25045458 or	NPJ-6PDBL279 or
	25045300	NPJ-6PDBL159
P203,P204	25045460 or	NPJ-4PDBL281 or
	25045303	NPJ-4PDBL162
P205	25045481	NPJ-2PDBL299
	Plugs	
P503a	25055900	NPLG-5P856
P505,P506	25055038	NPLG-2P29
P903a	25055168	NPLG-5P152

U2 CONTROL CIRCUIT PC BOARD (NAETC-6039)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors	
C301,C302	374721815	180pF ± 10%, 50V, Plastic
C303,C304	374728234	0.082 μ F ± 5%, 50V, Plastic
	Transistor	
Q303	2213354	2SA933S-R
	Resistor	
R301	5142024	N16RGLC250K, MN20F, BALANCE
	Switches	
S301,S303	25035677	NPS-122-L630, push
S302	25035678	NPS-122-L631, push

U3 LED PC BOARD (NALED-6040)

CIRCUIT NO.	PART NO.	DESCRIPTION
	LEDs	
D301,D713-D717	225291D	SEL4910D-D

U4 ENCODER PC BOARD (NASW-6041)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Switch	
S701	25030359	NRSF-112-20-RM, rotary

U5 VOLUME CIRCUIT PC BOARD (NAETC-6042)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors	
C305,C306	374724715	470pF ± 10%, 50V, Plastic
	Resistor	
R311	5142021	R16RGL, 100KBT25F, VOLUME
	Shield plate	
	27150405	

U6 TONE CIRCUIT PC BOARD (NAETC-6043)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors	
C311,C312	374723934	0.039 μ F ± 5%, 50V, Plastic
C313,C314	374726824	6800pF ± 5%, 50V, Plastic
C315,C316	374721544	0.15 μ F ± 5%, 50V, Plastic
C317,C318	374722734	0.027 μ F ± 5%, 50V, Plastic
	Jack	
P502	25045164	HLJ4317-01-3020
	Socket AS	
P503	2009990452A	NSAS-4P0606
	Resistors	
R335	5142022	N16RGLC, 50KC20F, TREBLE
R343	5142023	N16RGLC, 100KC20F, BASS
	Switches	
S501,S502	25035679	NPS-122-L632, push

U7 SPEAKER TERMINAL PC BOARD (NAETC-6044)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors	
C519-C522	374721215	120pF ± 10%, 50V, Plastic
	Terminal	
P501	25060125 or	NTM-8PDMN058
	25060244	
	Socket AS	
P504	2009990453A	NASA-6P0607

U8 POWER SWITCH PC BOARD (NASW-6045)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitor	
C902	3500191	DE7150FZ103M, IS C
	Switches	
S901	25035550	NPS-111-L512P, push
	27301216	SB1925 Capacitor cover

U10 PRIMINARY PC BOARD (NAPS-6047)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Fuse holders	
F901a	25050065	YSH403T<WT>
F902a	25050065	YSH403T
	Socket AS	
P903	2009990454UL	NSAS-5P0608
	Plug	
P901a	25055676	NPLG-2P632

U11 REMOTE SENSOR PC BOARD (NAETC-6048)

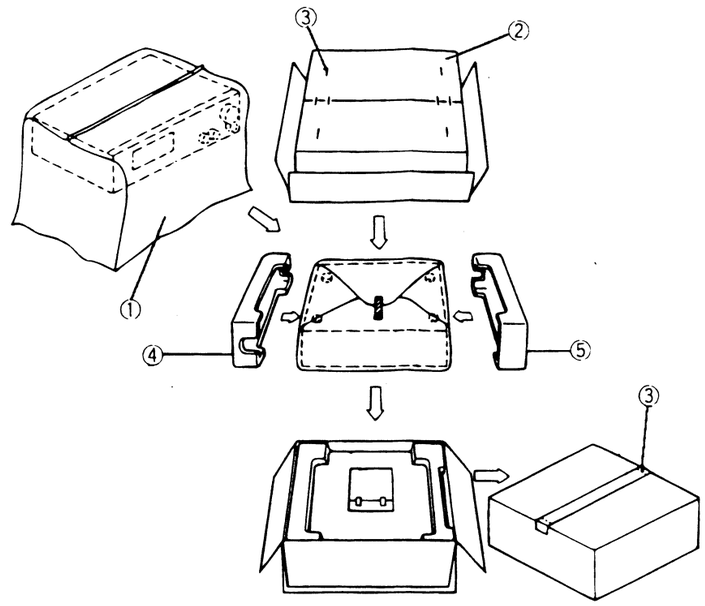
CIRCUIT NO.	PART NO.	DESCRIPTION
	Remote sensor	
Q710	24130011	PIC-12043TE

U12 VOLTAGE SELECTOR PC BOARD (NAETC-6049)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Switch	
S902	25065437	NSS-2215P, slide <WT>

NOTE: THE COMPONENTS INENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

PACKING VIEW

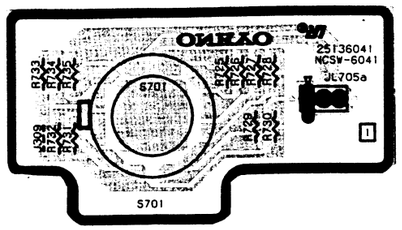


REF.NO.	PART NO.	DESCRIPTIONS
1	29100097-1AY	Polythene bag, 350x500
2	29053168	Carton box <B><P>
	29053170	Carton box <S><P>
	29053169	Carton box <B><P,WT>
3	282321Y	Staple
4	29091637CY	Pad (R)
5	29091636CY	Pad (L)
	Accessary bag ass'y	
	39100034-1AY	Polythene bag
	29342450A	Instruction manual, E
	29342451A	Instruction manual, U3FSI <P>
	29342453Y	Instruction manual, T <PT,WT>
	29342452A	Instruction manual, U3GSWD <P>
	24140286Y	RC-286S, Remote control
	3010194Y	UM-3, Battery
	25055018	CV-K-1, Coverter plug <WT>
	29355133AY	Instruction sheet (DBP) <P>
	29362169Y	Lable (EAN)AS <B>
	29362170Y	Lable (EAN)AS <S>

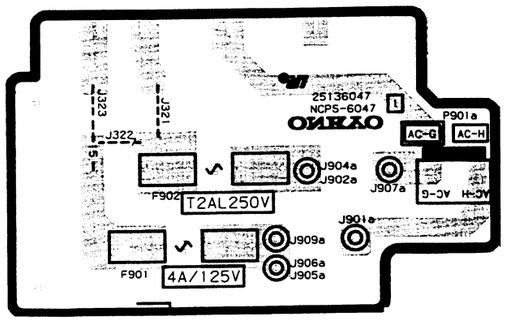
NOTE: <B> Black color model only
<S> Silver color model only
<P> 230V model only
<WT> Taiwanes model only
<PT> Asian model only

PRINTED CIRCUIT BOARD VIEW FROM BOTTM SIDE

U4 ENCODER PC BOARD (NASW-6041-1)

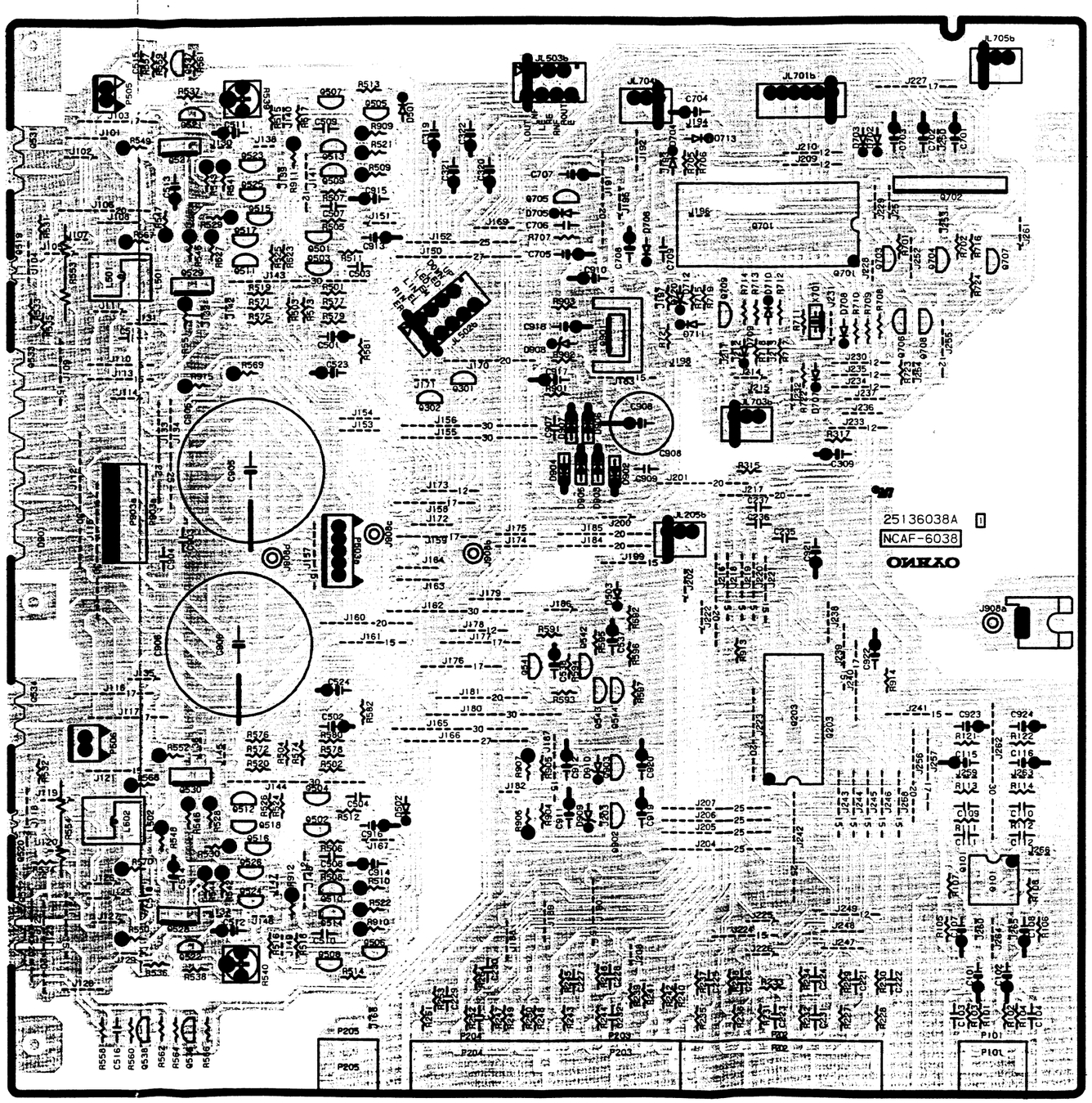


U10 PRIMARY PC BOARD (NAPS-6047-1)

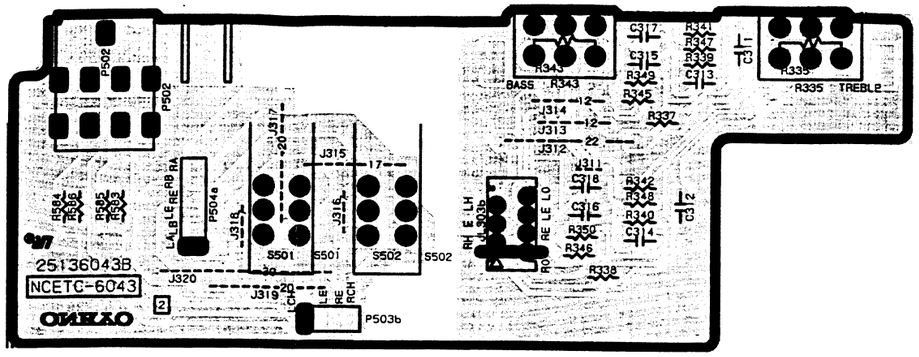


U8 POWER SWITCH PC BOARD (NASW-6045-1)

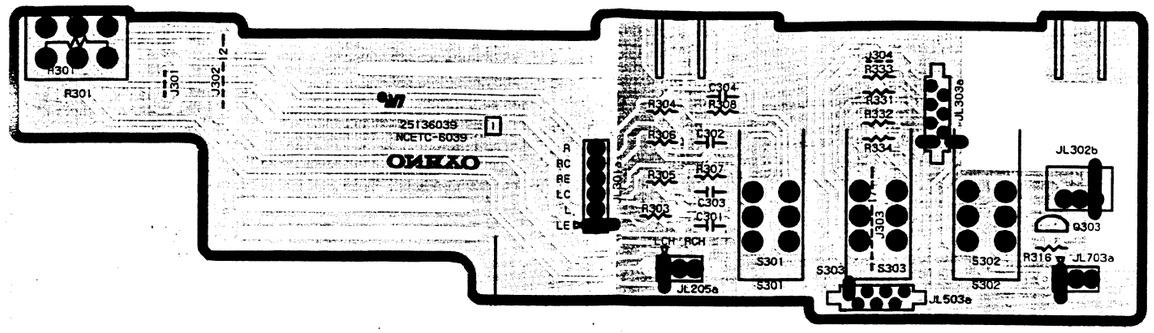
U1 MAIN CIRCUIT PC BOARD (NAAF-6038-1)



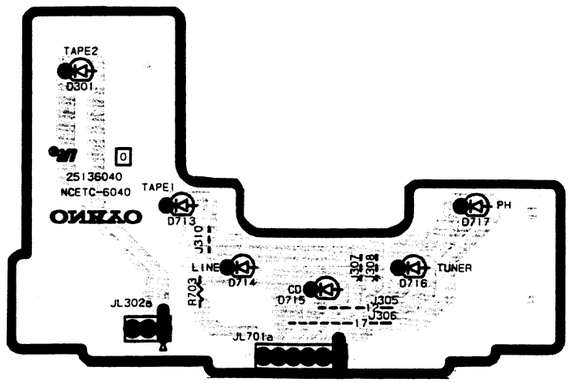
U6 TONE CIRCUIT PC BOARD (NAETC-6043-1)



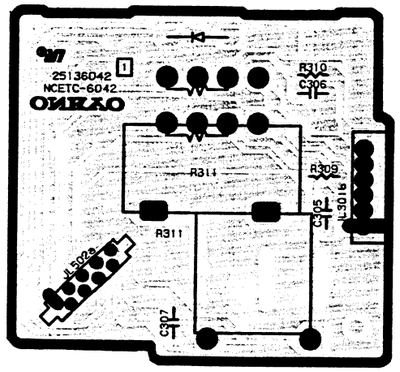
U2 CONTROL CIRCUIT PC BOARD (NAETC-6039-1)



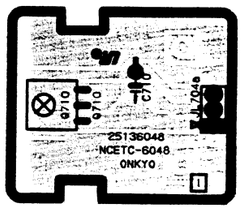
U3 LED PC BOARD (NALED-6040-1)



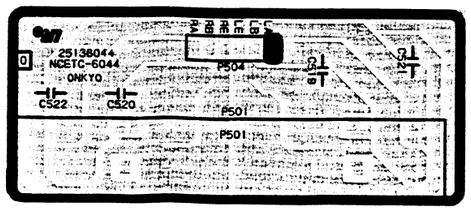
U5 VOLUME CIRCUIT PC BOARD (NAETC-6042-1)



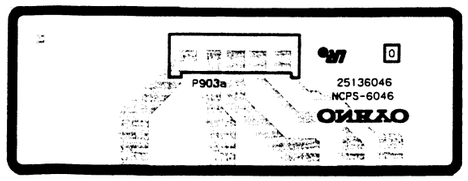
U11 REMOTE SENSOR PC BOARD (NAETC-6048-1)



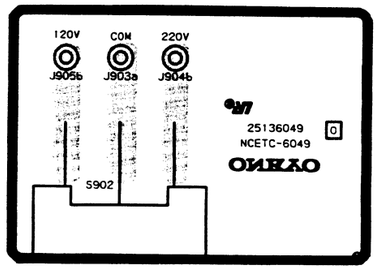
U7 SPEAKER TERMINAL PC BOARD (NAETC-6044-1)



U13 SECONDARY PC BOARD (NAPS-6046-1)



U12 VOLTAGE SELECTOR PC BOARD (NAETC-6049-1)



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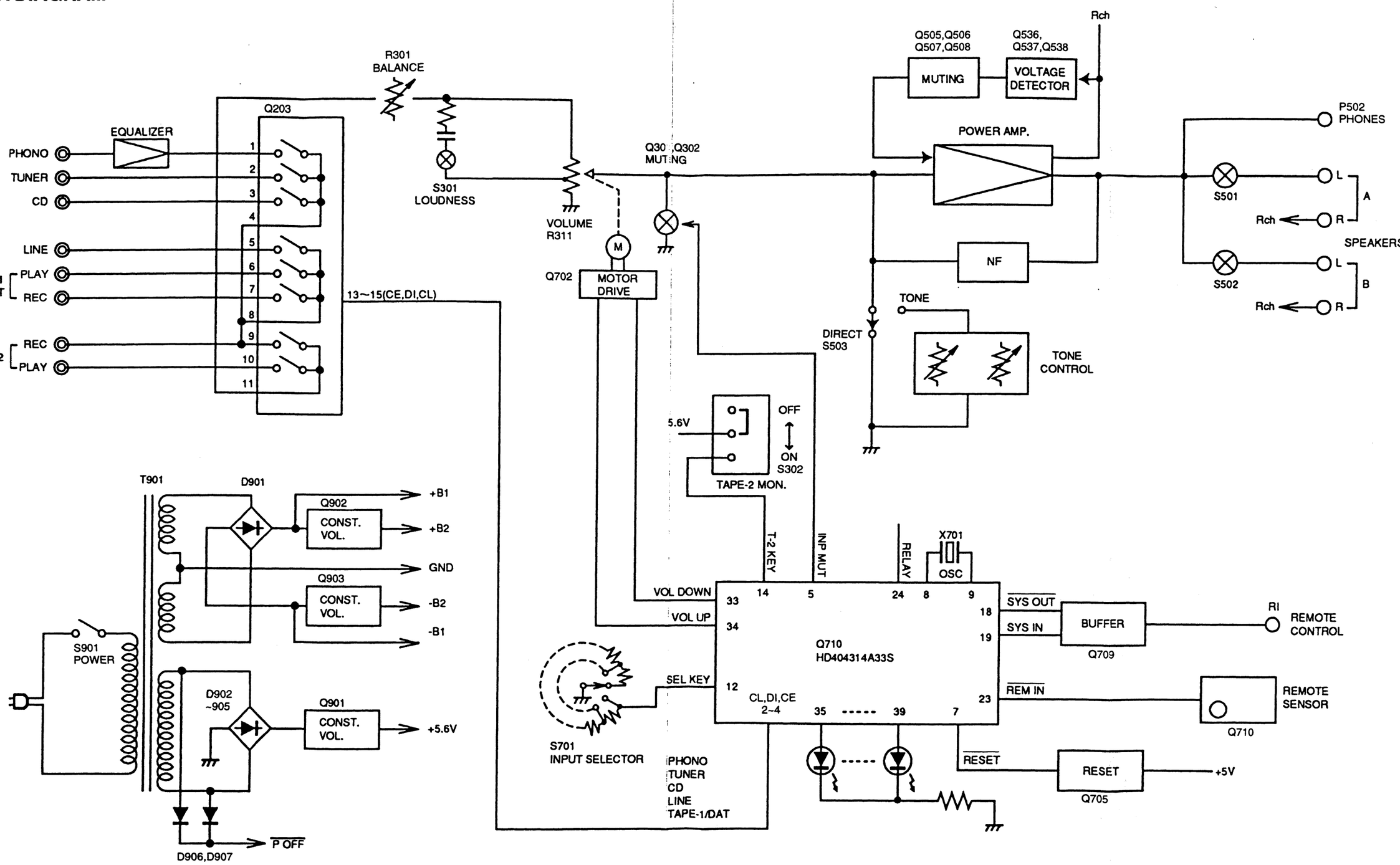
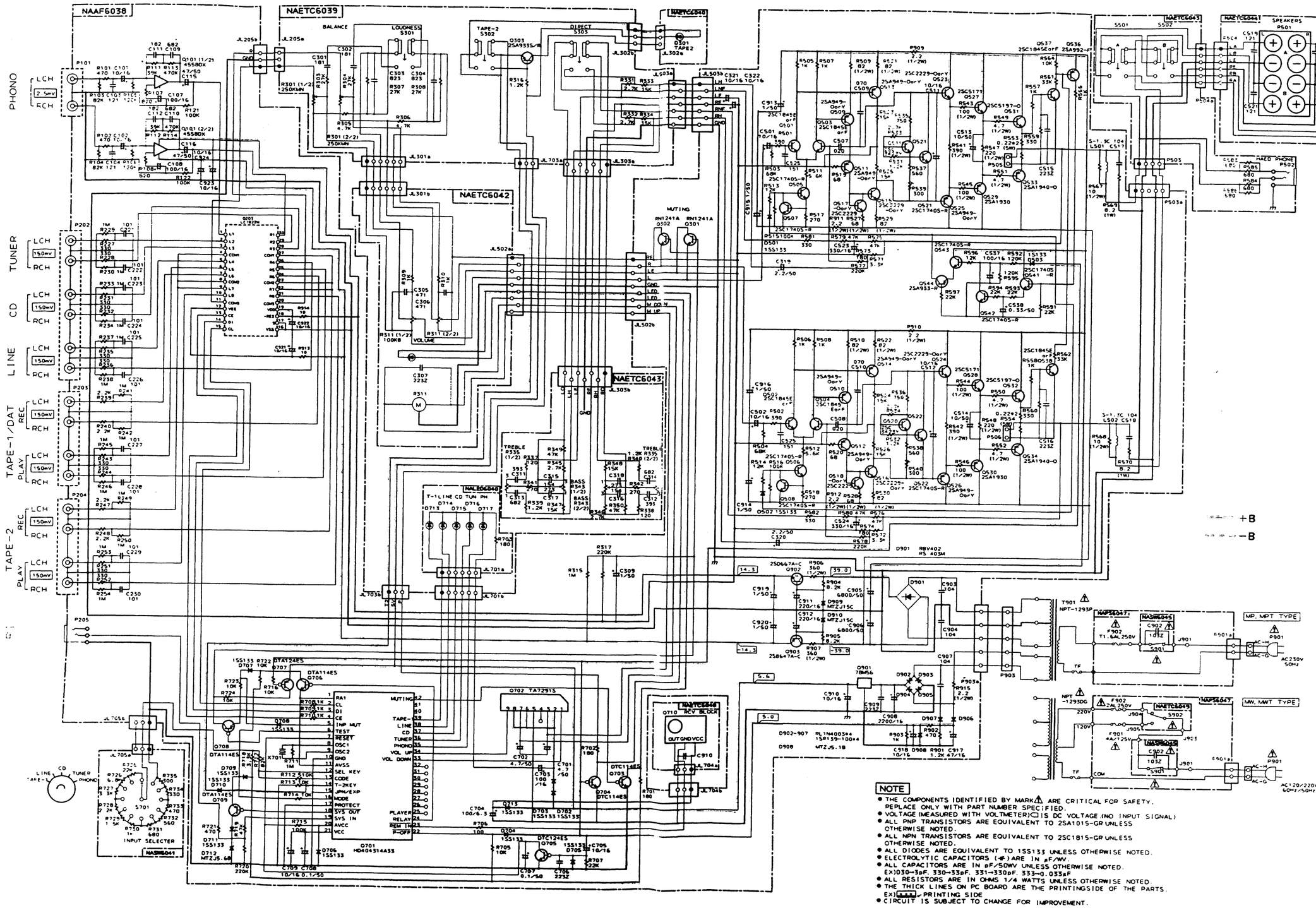
BLOCK DIAGRAM



SCHEMATIC DIAGRAM MODEL A-9211



NOTE

- THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER) □ IS DC VOLTAGE (NO INPUT SIGNAL)
- ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.
- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS (◆) ARE IN μF/WV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED. EX)330→3pF, 330→33pF, 331→330pF, 333→0.033μF
- ALL RESISTORS ARE IN OHMS 1/4 WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTINGSIDE OF THE PARTS. EX) ▬▬ : PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

PRECAUTIONS

1.Safety-check out

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Connect the insulating-resistance tester between the plug of power supply cord and chassis.

Specifications : More than 10 Mohm at 500V.

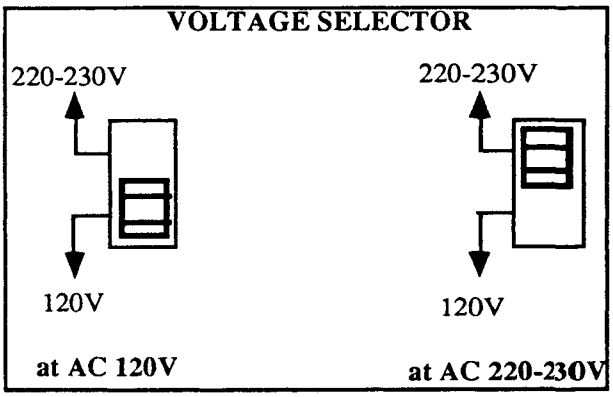
2. Replacing the fuses

For continued protection against fire hazard, replace only with same type and same rating fuse.

Circuit No.	Part No.	Description
F901	252151 or 252163	4A-TSC <WT>
F902	252073	1.6A-SE-EAK <P>
	252074	2A-SE-EAK <PT,WT>

NOTE : <P> 230V model
: <PT> Asian model
: <WT> Taiwanes model

3. Voltage Selector (Rear Panel)



Setting the voltage selector

1. Determine the proper voltage for your area : 220-230V or 120V.
2. IF the preset voltage is not correct for your area, insert a screwdriver into the groove in the switch. Slide the switch all the way down (120V) or up (220-230V), whichever is appropriate.